	Application No.	Applicant(s)
Notice of Allowability	09/823,363	LAN ET AL.
	Examiner	Art Unit	
	Chat C. Do	2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *10/05/2005*.

2. ☒ The allowed claim(s) is/are *2-7, 9-21*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None of the:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *attached herein* .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____.

DETAILED ACTION

1.   Claims 2-7 and 9-21 are allowed.

2.   Claims 1, 8, and 22-23 are cancelled.

EXAMINER'S AMENDMENT

3.   An examiner's amendment to the record appears below. Should the changes and/or

additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR

1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the

payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with

Robert P. Michal on 12/08/2005.

The application has been amended claims 17-18 as follows:

17.   A method of decoding a video signal, the method comprising: receiving an

array of Discrete Coefficient Transform (DCT) coefficients, said DCT coefficient array

having been obtained by performing the DCT algorithm on a macroblock (MB), said

macroblock being an array of pixels in a video frame, wherein said DCT coefficient array

corresponds to said MB; determining at least one of the horizontal complexity and the

vertical complexity of said MB by determining the value of a predetermined one of the

coefficients, wherein said predetermined coefficient represents the highest at least one of

horizontal frequency and vertical frequency; and performing inverse DCT (IDCT) coding

on a sub-array of coefficients within the DCT coefficient array in order to reconstruct

said macroblock, wherein the size and position of said sub-array depends on the

determined value of the predetermined one of the coefficients having the highest of at

least one of horizontal frequency and vertical frequency, and wherein the location of the

predetermined one of the coefficients is predetermined.

18. A system for decoding a video signal, the system comprising: receiver for

receiving an array of Discrete Coefficient Transform (DCT) coefficients, said DCT

coefficient array having been obtained by performing the DCT algorithm on a

macroblock (MB), said macroblock being an array of pixels in a video frame, wherein

said DCT coefficient array corresponds to said MB; and a processing means for:

determining at least one of the horizontal complexity and the vertical complexity of said

MB by determining the value of a predetermined one of the coefficients, wherein said

predetermined coefficient represents the highest of at least one of horizontal frequency

and vertical frequency; and performing inverse DCT (IDCT) coding on a sub-array of

coefficients within the DCT coefficient array in order to reconstruct said macroblock,

wherein the size and position of said sub-array depends on the determined value of the

predetermined one of the coefficients having the highest of at least one of horizontal

frequency or vertical frequency, and wherein the location of the predetermined one of the

coefficients is predetermined.

REASONS FOR ALLOWANCE

4.   The following is an examiner's statement of reasons for allowance:

The prior art of records fails to disclose or render an obviousness of a method of decoding a video signal comprising: receiving an array of DCT coefficients, determining at least one of the highest horizontal and vertical complexity by determining the value of a predetermined one of the coefficients; and performing IDCT coding on a sub-array of the coefficients wherein the size and position of sub-array depends on the determined value of the predetermined one of the coefficients having the highest of at least one of horizontal and vertical frequency, and wherein the location of the predetermined one of the coefficients is predetermined as cited in independent claims 17-18.

The closest found prior art is Lengwehasatit (U.S. 6,167,092). Lengwehasatit discloses a method of decoding a video signal using IDCT coding on a sub-array of the coefficients by determining the last non-zero coefficient position. However, Lengwehasatit fails to disclose the step of performing IDCT coding on a sub-array of the coefficients wherein the size and position of sub-array depends on the determined value of the predetermined one of the coefficients having the highest of at least one of horizontal and vertical frequency, and wherein the location of the predetermined one of the coefficients is predetermined as seen above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Chat C. Do whose telephone number is (571) 272-3721. The

examiner can normally be reached on 7:00AM to 5:00PM M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Chaki Kakali can be reached on (571) 272-3719. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

<div style="text-align:right">

Chat C Do
Examiner
Art Unit 2193
</div>

December 8, 2005

WEI ZHEN
SUPERVISORY PATENT EXAMINER

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